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POLIOMYELITIS

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Gentlemen:

The prevalence of poliomyelitis last year gives not unreasonable grounds for expecting it this year, and for expecting it to appear more particularly in those localities not greatly affected last year. True, we can give no very clear account of why we hold this belief—it is empiric at best, like nearly everything connected with the epidemiology of this disease.

Expecting it, however, as we do, the rational thing is to prepare for it as best we may, considering how little we know even yet of its sources or methods of spread.

Suppose to-morrow a case is reported to you. What should you as Health Officer do? You should, I think, see the case or at least secure certain details beyond the mere name, sex, age, and address—particularly you should find out the date of earliest symptoms; the whereabouts of the patient during the two weeks preceding the onset; the presence or absence of paralysis, when it occurred, if it is present, in relation to the date of earliest symptoms; and the existence or otherwise of other similar cases preceding, accompanying or following the reported case.

The next steps are—the isolation of the case for six weeks (two to three weeks, according to Committee of Confederation of State and Provincial Boards, U.S.P.H. Reports, May 18, 1917), the observation of those contacts who are children for two weeks, and immediate report to the chief health officer of the province, of your findings, in full.

I think myself that these procedures cover the maximum that should be done of a compulsory nature. A pretty concentrated experience of the epidemiology of poliomyelitis extending over several years, from 1908, and a continued interest in the subsequent observations of other epidemiologists to date, lead me to believe that almost all the other measures for restriction proposed, and sometimes carried out under pressure of public panic, are useless and damaging.

Amongst the hysterical measures, of absolutely no avail, I would mention first, the closing of the public schools. This measure is put up to the health officer, during poliomyelitis outbreaks, usually with regard to opening the schools in the fall rather than closing them in the spring, because the disease is more often prevalent in the fall term than in the spring term. If we are to be governed by horse sense and evidence, not by blind, unreasoning fear, we will not put off the opening of the schools even by one day on account of poliomyelitis; first, and most conclusive reason of all because all the evidence we have on the subject shows that the opening of the schools correspond as a rule with a diminution, not an increase, in the cases; second, and less important but worth remembering, because the incidence of poliomyelitis and its fatality is greatest in children not of

school age, and therefore is not affected by school closing; third, and least important but somewhat comforting, because the opening of the schools gives an opportunity, to be had in no other way, of watching the children of school age and discovering mild cases, etc., otherwise overlooked.

If, however, you must close the schools, remember that you must close Sunday schools, moving-picture shows, and all other meeting places of children also, or place yourself in an absurd situation only to be made more absurd if you do close those places, for there is plenty of evidence that poliomyelitis will and does spread in rural communities in summer, when there are no schools, moving-picture shows, etc.

The extreme measures employed in certain localities last year while disrupting the ordinary life of the communities involved, showed no evidence of producing even the smallest results in restricting the disease, and personally I think that prohibition of travel for all under sixteen, keeping all these at home day and night, etc., are and have shown themselves to be quite fallacious. Of our three local cases in London, last summer, one was a school boy attending school, but the other two were sequestered, one an 18-months-old child, the other a boy of six, whose parents had restricted him to their own backyard entirely, with the very object of escaping the disease. Taking the children away from the epidemic area seems equally fallacious. I need hardly remind you of the well-known case of a prominent State Board of Health Secretary who removed his four children to a very exclusive summer resort in order to escape the city epidemic, and lost two of them by death from the disease developed while at the resort. I, myself, have seen similar instances; in one instance the only two cases that developed in a certain rural community were in the persons of the two children of a rich man who, in fear of the disease, had isolated them with a trained nurse in his own estate.

When we turn from the problem of legal control to the equally perplexing problem of advising the many who will ask this summer what is best to do in various situations, I am accustomed to admit that from the depths of my ignorance I can only advise, without knowing whether the advice is any good, three things:

First. Keep the children as quiet, cool, well-fed and content as you can, avoiding over-exercise and excitement.

Second. Have a physician see any child showing any indisposition however slight, that involves fever, or sore throat, or upset digestion, or pain in limbs.

Third. When one or more children show such symptoms, give all round a dose of five grains hexamethylamine tetramine three times a day; spray noses and throats with lemon juice and water, equal parts, filtered so as to pass through an atomizer.

Turning to the developed case, therapeutics fortunately is a matter with which the health officer has no direct responsibility. But advice is often asked, and my own is as follows:

First. Should the case go to the hospital? I think this should be decided on the basis of where the best facilities are to be had for keeping the patient quiet and content, unless necessity for catheterization or similar expert attention becomes necessary.

Second. Should any form of serum treatment, electric treatment, or other special treatment be used during the acute stages? My own idea is that nothing but supervision of the main functions of the body should be attempted during the acute stages and I do not know of any evidence conclusively in favor of any form of special treatment as yet.

Third. How soon should be begun the later treatment of a case which has passed the acute stages? In my opinion, not for six weeks in most cases and even longer if pain or tenderness continue. Electricity is useless except in the hands of experts, and even then in but few selected cases. Special muscle training is the great desideratum.*—After-care of Poliomyelitis.

*Robert W. Lovett, Journal American Medical Association, February 10, 1917.

Clinical Studies of Infantile Paralysis

By E. J. Durocher, M.D.
Windsor, Ont.

Read at Seventh Annual Conference Ontario Board of Health Officers, May 29, 1917.

On account of the shortness of time allotted to this important subject, I shall confine myself to a few brief statistics and observations of the disease, which may be of some interest to the Health Officers of this Conference.

At no time previously was the City of Windsor or its neighboring towns and municipalities more seriously threatened with an epidemic of Infantile Paralysis than during the year 1916.

The City of Windsor with a population of about 30,000 people, there were 20 reported cases and two unreported; Sandwich, with a population of about 3,000 people, had one reported and one unreported case; Walkerville, with a population of about 4,000, had four all reported cases. Ford City, with a population of about 2,500 people, had four all reported cases; Sandwich East Township, one reported case, and Sandwich West Township five reported cases, making a total of thirty-eight (38) cases with one single death of the bulbo-spinal type. These reported cases were only the paralyzed type, but how many cases of the unparalyzed type existed in our community? I dare say there were perhaps hundreds of cases.

The Time of The Year

The first case which was unreported occurred on May 14th. The month of June furnished three reported cases; July thirteen cases; August with two cases, September and October each one case. It is readily seen that the largest number of cases occurred during the hottest summer days, namely, during the month of July.

Types

Of the twenty-seven cases for Windsor and Sandwich West Township, there were thirteen boys and fourteen girls—there were eight cases between the ages of one and two years and nineteen cases between the years of two-and-a-half and five years of age. There were twenty-two cases of leg paralysis, mostly the left leg, one with both legs and left arm who died; this was the bulbo spinal type. Three of the left shoulder and one of the right shoulder paralysis. Of all these cases about seventy-five per cent. have recovered without permanent disability, or nearly so, but the others will undoubtedly be crippled for life. So one can conclude that the epidemic from which we were threatened was of a rather mild nature. Of those just mentioned there was not one single case that did not show some previous symptoms before the paralysis set in. They all showed elevation of temperature, some had convulsions and all those that were able to talk, spoke of pain either in the back or one or both limbs, and paralysis usually coming on between the second and fourth day. Some of those cases were treated for teething, some for cholera infantum, some for auto-intoxication and several for the so-called rheumatism.

Report of Two Cases

Case No. 1. Name, E. B. Female. Age, 3½ years.

Family history negative. Past history—child never had diseases of childhood. Present history: On August the 11th, child was perfectly well and went to Belle Isle Park, Detroit, Mich.; August 12th, child was taken sick at about 5 p.m., with vomiting, diarrohea, headache, elevation of temperature, and complained of pain in the back and legs; August 13th, I was called in and saw the child, with rigid back, painful on pressure, pain in both lower limbs, temperature 103 and still vomiting. There immediately arose to my mind that I had a case of infantile paralysis of the severe type. August 14th the child was partly unconscious and had now complete paralysis of lower extremities and left shoulder, with some rigidity of the back and neck. Dr. Cruickshank, who is here to-day, was called in as consultant who confirmed the diagnosis. By

this time the child was having great difficulty in breathing, became cyanosed and finally died on August 15th, from asphyxiation, due to some paralysis of the respiratory centre. This child died of the bulbo-spinal type.

Remarks

In this case I have endeavored to trace the mode of infection. On the same street was a case reported and quarantined August the 9th. In this family was a brother of the sick child working in a grocery store where an uncle of the case, boarding with it and who was also employed in the same store. In fact the day before the child in this case took sick, the brother of the quarantined case came in the house of this child to deliver groceries, and besides, gave her some candy. (This brother had evaded the quarantine by pretending to live away from his home). On the next day of this incident, the child was taken sick. Whether I have instituted a chain by which I can be satisfied that it was carried from one to the other, I shall leave to your criticism, but for my part I believe it was.

Case No. 2

This case I think is most remarkable. A family of four children in my district, lived about four miles from the nearest case. The father hauled garbage which he collected from the hotels almost daily. There were four children in this family, and out of the four, three were stricken with infantile paralysis. Two of these children were left leg paralysis and one was the left shoulder. In the case of the left shoulder a very pathetic picture presented itself. The baby when six months old had had the right arm bitten off just above the wrist by a pig. The paralysis settling in the left shoulder rendered the child perfectly helpless, but fortunately, as Providence will provide, the child has to-day almost recovered the use of her left arm, and I firmly believe that within two years that the arm will be perfect again. I mention this case simply to show you that this is the only family in all our cases where there were more than one member of the same family afflicted with this dreadful disease, whereby pointing that this disease is infectious, whereas all three were taken sick about twenty-four to forty-eight hours apart.

Investigation as to Carriers

In our investigation I will say as a member of the local Board of Health for the City of Windsor, that in no case were we able to trace one single case as to how it got infected or carried.

Out of our twenty cases in the City of Windsor, we found that there were eight fathers of these children working at the Ford Motor Company, of Ford, Ont. Of the others there were some working at various parts in the city, others in Detroit and some not working at all. Our eyes were cast on the Ford motor plant for the source of infection, and so inquiries after inquiries were made in their different departments and branches, but to no avail.

Method of Quarantine

In July a joint meeting of the neighboring towns of municipalities of Windsor was held, and Windsor decided to have a strict quarantine, thereby quarantining the wage-earner. By quarantining these families in such a drastic measure, we were obliged to feed all these people, costing our city an immense sum of money, but money, I dare say, well spent for the protection of our people.

Our quarantine did not end here. By order of our chief officer of health, Dr. McCullough, and to the chagrin of our children, our swimming pool and our playgrounds were closed and rid of their various paraphernalia; our Sunday School classes were closed, the children up to the age of fourteen were not permitted in theatres, on excursions or picnics. Milk dealers, butcher shops and all grocery stores were all thoroughly investigated and inspected. The local health board appointed four health nurses under the supervision of our M. O. H., Dr. Cruickshank. These nurses were ordered to go on a house to house campaign and the informations obtained by these nurses were of the most valuable importance.

In conclusion I will say that our City Council and every individual family were in accord with the work and supported our measures to the letter, thereby saving our children from one of the worst calamities that had ever befallen our city and threatened our neighbors.

Public Health in Average Town—Ways and Means of Conducting :

C. A. Patterson, M.D., C.M.
M.O.H., Forest, Ont.

Mr. Chairman and Gentlemen:

When Dr. McCullough wrote asking if I would give a paper at this convention, I was indeed very glad that he left me my choice of subjects. In past years we have heard numerous papers by health officers of various cities, stating how they controlled communicable diseases, preventing their spread throughout the community; they have told us how they carried on public health work, etc. All these have been most useful to us all, even if we could not follow their methods entirely. For while they have considerable money at their disposal and while they have competent sanitary inspectors and competent public health nurses, the average M.O.H. has none of these, consequently, I chose my subject not from any viewpoint of being able to enlighten you as to any better methods of conducting your public health work, but more because I hoped that my bringing before you the work we have accomplished in my own town and can be carried out with a little persistence in any town, we might all profit by any discussion arising from my topic and possibily obtain some points that would be of service to us in our own individual communities.

In larger cities, such as Toronto, the health officer, while he has his troubles, has nothing to fear in carrying on his public health work. He orders a certain thing done and sees to it that his orders are carried out. He has almost perfect control over his food and milk supplies. He has perfect control over communicable diseases in the way of isolation hospitals, etc., especially from the point of view of the average health officer, and they can produce results in ways and means that we can not. In the smaller towns, we have to go very slowly, the people do not respond to public health matters as they do in the cities. A great many of the residents of our smaller towns are retired farmers, living on a small amount annually, and are content to go along in an easy way, and resent any outside interference. They object to anyone telling them they must do this or they must do that, as the case may be. So, first of all, we must do our best to educate these people in public health matters. The majority of them are ready to tell you that their fathers before them lived without doing any of the present day things called for by public health, and died at the age of 100 or thereabouts, and they guess they can do the same.

Now, education in no matter what form or for what it is given, is necessarily slow work. This can best be carried out I find along the following lines:

1. By lectures or talks to Women's Institutes or other women's societies. This can be easily accomplished. A word spoken to the president of your society that you would be pleased at any time to give them a paper on some subject of interest will, as a rule, obtain for you an invitation to be present at one of their meetings, where you will find a fairly representative audience composed of business women, school teachers, Sunday school teachers, housewives, etc., and as women, once you get them started, will stay with an idea, you can be assured of reasonable support. In my own town, I am asked each year to speak to the Institute and give a synopsis of the public health convention and any new ideas that are brought up, which I do, putting things before them in as an intelligent form as possible and generally end up by applying the subject to our own community. Personally, I have very generous support from the Women's Institute. Dr. Hastings issues a public health bulletin which I receive regularly, and which, after reading I hand over to the Women's Institute, and any special part I wish read, I mark it. These pamphlets are of benefit to the members and help to bring public health matters to their attention.

2. A second form of general education is the St. John Ambulance Association.

Last year, we arranged for two courses of study in the St. John Ambulance Association. Classes were formed and I gave lectures in first aid, and through the Women's Institute, a graduate nurse was procured who gave instructions in the home nursing class. In giving these lectures and in examining the classes, you can instruct them along public health lines. Through the stress of Red Cross work and war work, we have not continued these classes, but hope to complete the other two courses in sanitation and hygiene. I also hope to be able to form classes among the boy scouts. If you can get interest once established in this work, you will find things will work out very favorably.

3. Thirdly, we have our provincial aids. From the Provincial board, we have the public health lectures and pictures given each year by the district representative. It is up to the health officer of each town to give this his whole support and see to it that it is well advertised in order to assure a good attendance and it is a place where local matters can be dealt with either through your district representative or by yourself. Public health talks are given from time to time by Dr. McCullough in the local newspapers. If your paper is not receiving these articles and publishing them, see to it that they do so. Then there are numerous bulletins and publications sent out at various times by the Provincial board, which are of great value to every M. O. H., and will give you many good ideas which you can work out in your own community. After you have read these, do not destroy them, pass them on to some one else interested in town welfare. You never know just how much good they may do. Just here, I would like to suggest that the provincial board issue a monthly pamphlet dealing with contagious diseases and how to avoid them, and with sanitary matters, in a concise and readable form, for public school use, and that a certain number of these be forwarded to each health officer and that they see to it that these papers are read by the teachers of schools to the children, also by the superintendents of Sunday Schools, etc. The copies required could be either sent direct or through the M. O. H., to be given to each school or organization and would go a long way toward pushing forward the matter of public health, for it is children of to-day that make the citizens of to-morrow.

General Sanitation in the Small Town

1. Street cleaning—A great many small towns make no attempt at street cleaning, while a great many sprinkle their streets in summer to keep down the dust, which is as far as they go. Two years ago we procured waste cans and placed them at various corners and had notices inserted in the papers what they were for, etc. They were used and people spoke of the difference in the looks of our streets, not considering the sanitary part of it. Before, fruit pealings, papers, etc., were thrown promiscuously about the street, since that they have not been so much, and for those who continued to do so, we had a man go over the streets a couple of times each week and pick up all fruit pealings, papers, etc., and empty the cans. This worked very well for the first year, when the council objected to it costing them a small sum per week, so I took the matter up with the Women's Institute, and the second year, they took over the care of this and procured two boys to look after it. I found this better than to try and force the council into something they were not quite willing to do. This year I hope they will look after the streets without any trouble, as I think they understand it better.

Regarding refuse garbage and manure, etc., we sent out notices to everyone keeping animals, notifying them of the regulations regarding manure and had the satisfaction of seeing a great many people erect suitable places for keeping it. We did not force anyone and found very little opposition. In some instances, second notices had to be sent, and the matter explained. As regards night soil, outdoor closets, etc., each year we are getting rid of outside closets people are either putting in suitable chemical closets or else are establishing septic tanks with their own water systems. Not much can be done along this line as we have no public waterworks or sewerage system. Before the war broke out, we were agitating for

sewerage and waterworks, but owing to the war this has been dropped, and I hope will be taken up again when the war closes. I think every town, no matter how small, ought to have a proper waterworks and sewerage system. As to the removal of night soil, we simply live up to the health regulations regarding that, and have a couple of men who look after the work and all closets are cleaned as early in the spring as possible, and those who object to having them attended to, we simply tell our men to go ahead, and if the people refuse to pay for it, the council does so and the expense is charged up against the property with the taxes. In this way, it is easy to see that all closets are attended to and the matter is not left to the people themselves to be done haphazardly or not at all.

Food Inspection

Along this line there should be no trouble whatever. We have no trouble regarding this now. Some time ago, our slaughter-houses were in bad shape and very unsanitary, but last year we had the satisfaction of seeing a fine new cement block slaughter-house erected just outside the town by our local butcher and it is thoroughly up to the mark. It was built under the direction of the Board of Health, and our butcher is very careful of all meat sold. It is inspected by a veterinary and we are assured of good meat. The same applies to our dairies. We have two milk routes, one of which last year established a bottle system and erected a sanitary cement block dairy with all requirements for keeping and cooling milk and cream and where all bottles, utensils, etc., are kept and looked after, nothing being taken care of outside of this building. His stables and surroundings are in good shape and he has in his dairy an abundant supply of fresh spring water for use. We have a creamery in town which is rated by the inspector as A1. Every little while, I take a sample of the milk and have it tested and filtered for sediment. The lowest we have yet had was 3.3 butter fat, and a very minute quantity of sediment on filtering. Regarding food in stores, etc., it is a matter of trying to keep everything as sanitary as possible, and nearly all food displayed outside of stores is kept in glass cases built for that purposes. I may say anything we have accomplished regarding food for sale, we have done so by simply personally talking to the party concerned explaining the why and wherefore and how it is to his advantage as well as to others, and generally get what we want without any trouble. I am personally against using force or going to extreme measures to procure anything without absolute necessity and that necessity very rarely arises. It was discovered rather early in public health administration that coercive laws were largely ineffective. Education is the basic requirement and can be best conducted by personal interviews.

Communicable Diseases and School Inspection

When we consider communicable diseases, we must also consider school inspection, as the two are inseparably connected. In an epidemic of any sort, measles, scarlet fever, diphtheria, etc., nine-tenths of the trouble originates from contact of school children with each other, and as a consequence some measure ought to be taken to control the spread of these diseases from a carrier to others. There are various quarantine laws, etc., for preventing spread, but they do not get to the root of the trouble. It can only be done by some means of detecting the disease in the early stages, as once it is established one child may have infected dozens before he is quarantined and the damage is done before you even know about your case. The only way to do this is by school inspection, and I maintain that no health officer can control an epidemic or rather prevent one without school inspection. A graduate nurse trained in this work will detect the trouble on the child's arrival at school and on suspicion will send the child home, to report either to the health officer or his own physician before he has a chance to infect the whole school, and this helps to nip your epidemic in the bud. Now, in cities and large towns, school inspection is established and has proven itself, and I do not need to deal with the why and wherefore of school inspection,

as I think we are all agreed that it should be, but let me rather point out how school inspection can be established and carried on in the small town as well as in the city. Two years ago the matter of school inspection was brought up in our town, again through the Women's Institute; they receive a government grant for school clinics and the services of the district officer of health were obtained and the schools throughout the district were, with the aid of a department nurse, inspected by him. The defects found by him at that time were so numerous that we took up the matter with the School Board with a view to establishing some form of regular inspection. I attended the school board meeting in conjunction with an executive committee from the Women's Institute, and placed the matter of school inspection before them with facts as to why it should be established. After answering many questions and discussing many points pro and con, the matter was then placed before the board by the Women's Institute committee, suggesting that they would pay for a trial three months and that it be placed under the direction of the health officer. The school board accepted the proposition and a room was fitted up in the school and a trained nurse procured who was to conduct the inspection at least once per month for a trial. We sent our nurse to London, where she went to the schools there, and accompanied the school nurses in their work and inspection there, and when she returned we had our first inspection. The first few times I was present and assisted the nurse, but left it mostly in her hands. People were quite delighted and some follow up work was done and visits to the home made by the nurse and advice given. One of our dentists offered his service in any way he could be of use, with the result that a dental clinic was arranged for, and numbers of children who were unable to have their teeth attended to were looked after either free of charge or at a nominal fee. When our trial was over we continued our work and are still continuing it partly under the Women's Institute and partly under the school board. We have just made a good start. What we would like to do is to get a few of the country schools around us to take the mater up and thus give the nurse enough to do to keep her full time. We tried to do this, but as yet have found considerable objection from the country schools, and this is where I think the rural M. O. H. should work with his neighbor in the immediate towns for the betterment of all concerned. The plan as we carry it out is that all children are advised by the nurse in so far as she can do so, in sanitary matters, bathing, care of the teeth and hands, etc. Any matter that comes up that is beyond her control she refers to myself and we give a card to the child referring him or her to his family physician for attendance. After a child has been out of school, we do not allow any of them to return to school without a certificate from the M. O. H., stating that the child can safely do so thus the M. O. H. has full control over all conditions and diseases in children of school life and that is where you get most of your contagious diseases. When you have school inspection and where it is under the M. O. H. and he takes an active interest in it, you will find you have gone a long way toward controlling your epidemics. As to closing of schools during an epidemic, I do not think it advisable to do so without you can devise some way of keeping all children off the street and from coming in contact with one another. It is better I think to continue school and have your pupils inspected each day for symptoms of the disease and sent home immediately and the matter reported. In this way, you will get track of cases that you otherwise would not know of and that would conconstitute carriers. To bear out what I have said regarding school inspection, I might give you a few instances of the good it has accomplished even on the small scale that we are yet working. Since school inspection has been established in our own town, numbers of cases of enlarged tonsils and adenoids, which, as we all know, predispose to diphtheria, etc., have been operated on and the condition remedied. Nearly all the children who had defective sight have had their eyes attended to and are wearing suitable glasses. Practically all the cases of carious

teeth have been attended to. So far as we know we have used no compulsion in having this work done, as we are hardly far enough advanced to do so, but we are getting good results. In Ailsa Craig, a clinic was held after a school inspection, and Dr. Thompson of London, came out there and operated on 19 cases that needed attention. The expense was met partly by donations. Children operated on were those unable to pay, and those who could pay anything at all gave what they could towards defraying expenses. This merely shows what can be done toward the health of our school children, if you get the right ones interested. The reports of the number daily having been turned down by the army medical men, show the need of doing anything and everything in our power to give every child the chance to become a strong, healthy man or woman.

As to troubles, you will have many. Difficulties will be placed in your path on public health work not only by the people, but by physicians who should give you their whole support. In my own instance, when I made the rule that no children should be allowed to return to school without a certificate from the M. O. H., some of the other physicians objected and sent in their own certificates. The reason I made the above rule was through wishing to be a good fellow, etc. Some physicians might allow a child to return to school before a M. O. H. would, or might make a different diagnosis and allow the child to return. In the case I spoke of, where certificates were sent in, the principal of the school refused to accept it and the physician wrote to Dr. McCullough about it. I am glad to say Dr. McCullough bore me out and he did not obtain permission to use his own certificate. I have had no trouble since along that line. In granting certificates hold rigidly to the public health law and show no partiality and thus avoid trouble. Should you give a certificate to one in a shorter time than another, etc., you will fail in your work, and dishonorably so. I might say here, I think it should be made compulsory that all schools, rural and otherwise be under regular inspection, and until such time as it is, a number of rural schools will not have it. A school nurse could be appointed in rural sections to have charge of a certain number of schools and give her full time to that work, and she should be placed under the health officer as a public health nurse. There is nothing that I know of that will help a health officer in his work like school inspection. Some of the worst enemies children have from a health point of view, and the ones to which the health officer should pay most attention are:

1. Doctors who do not report contagious diseases.
2. Dirty milk men.
3. Flies.
4. School teachers who persist in keeping school windows closed.
5. Mothers and fathers who expose their children to contagious diseases believing they must have them anyhow.
6. Fanatics opposing school inspection.
7. Violaters of quarantine.
8. Dirty parents in dirty homes.
9. Manufacturers of adulterated candies and adulterated foods.

In dealing with any of the above, educational methods are by far the best. I do not think anything is to be gained by force. But if you have to do so, by all means assert your authority. The Texas Health Bulletin is responsible for the statement that it is unfortunate that some children were not born in the barn, so that the head of the family would give them at least the same care he does his stock. Some pigs are registered, some babies are not. Some farmers vaccinate for black leg in cattle, but not for smallpox in children. If the rural health officer would but understand the extent of his authority, he would accomplish a great deal more along public health lines than he does at present. The provincial law gives you absolute authority to dictate to any and every person in your jurisdiction on matters of control of communicable diseases. If you cannot get what you want by other means and it comes to a point of bringing an offender against the law to justice, the local health officer should make the complaint and the provincial authorities will back him up. In the matter of a disagreement as to a

disease being of a nature to require quarantine or not, or where physicians do not agree as to diagnosis, it is the right of the health officer to establish quarantine until the nature of such disease is fully established. During the scarlet fever season there are in many localities diseases being called "Rash," "Poison Ivy," "Buckwheat Rash," and many other terms which mean nothing, but which allow the patient and his relative to be at large when they should be under quarantine. In such cases, you do not have to accept the physician's diagnosis but should use your own judgment. It does not pay to be careless where contagious diseases are concerned. "It is better to be safe than sorry," is a good rule for the health officer to follow and will often save much sickness and sometimes the spread of an epidemic. When one assumes the duty of health officer, he should realize that the health laws are there to be carried out in the interests of the community. Read your health laws and require every one in your community to live up to them as nearly as possible. You are not to blame because the health laws are on the statute books, but you are to blame if you are negligent and allow disease to spread through the law being ignored with impunity in your municipality. In closing, I might just ask you to pardon so much reference to my own town, but I can only speak for myself. There are, no doubt, numerous men here who have gone a great deal further along public health lines in the small town than I have, but we can all do only our best. I might just say that while towns around us within a radius of 20 to 25 miles have had their epidemics of typhoid, scarlet fever, etc., during the past three years, we have had no cases of typhoid, two cases of scarlet fever, three cases of smallpox and 77 cases of measles, most of the latter occurring during the spring of 1916, when they were so prevalent throughout the whole country. The population of our town is approximately 1,800-2,000.

Practical Points in Enforcement of the Regulations and the Difficulties of the Medical Officer of Health

By Dr. H. Ross, Clifford, Ont.

Mr. President and Gentlemen:

I wish to call your attention to a few practical points relating to the enforcement of the regulations re infectious disease and some of the difficulties encountered by the M. O. H. in his efforts to carry out the law and to lessen antagonism in its varied phases of popular prejudice, ignorance, and too often, dishonesty.

To disabuse and disarm prejudice, to enlighten ignorance, and to meet and shame dishonesty with the light of truth and candor are a few of the many privileges of the M. O. H. desirious of making the regulations a success, without himself appearing in the unenviable role of a public nuisance, so troublesome in his locality as to require immediate removal or abatement.

One difficulty is that some heads of families who are the most punctilious and insistent in having their neighbors subjected to close quarantine, are themselves too often careless, if not, indeed, combative and aggressive in resisting the law.

During a recent epidemic of mumps, one lady either unaware or defiant of the fact that quarantine was required, while making no secret that certain of her children had the disease, allowed them the freedom of the town. The health inspector was sent with a quotation from the regulations re mumps, with instructions to read it in this and several other homes where the disease was known to exist. Later, when all traces of the disease were gone, a neighboring practitioner was called in, who is said to have affirmed that the disease had not been mumps, but some mild form of glandular affection. Reinforced by this professional ipse dixit, the lady once more turned her numerous progeny loose upon the public in defiance of the M. O. H. and the regulations.

But this case had its amusing as well as its serious aspect; for this champion of woman's rights, to go as she pleases in evading the law and in defying its exponent, the M. O. H., at once turned right about face and became the vigorous champion of the law as applied to her neighbors. To this end, ignoring the M. O. H. and the regulations, she wrote to headquarters for reliable information, even to our chief officer of health, Dr. McCullough, getting precisely the same information read in her hearing a short time before, viz.: Eighteen days isolation after exposure, and twenty-eight days quarantine for a person having the disease.

Having thus entered the lists as the champion of law and order, not satisfied that the light she had received should remain under a bushel, and in order that her friends and neighbors should share with her in the brilliancy emitted from that great central luminary, the chief officer of health, she had the exceedingly laconic letter from headquarters printed in the local paper, as a terror to evildoers, who might resist the law, unless championed by the local as well as the central "powers that be." The dear lady, however unwittingly, thus became the ally that old ignoramus the M O H, whose ignorance rather than her own she sought to expose.

That we should meet cases similar to that just related is not surprising in view of human imperfection; for not all are honest. One would, however, suppose that members of our intelligent and honorable profession could scarcely be found, who would wittingly ally themselves with such, and thus lend themselves to the evasion of the law.

But where are we to look for the explanation of much that bears the earmarks of moral crookedness, if not to the unwelcome thought which will obtrude, that not all doctors are honest; or if, in the exercise of that sovereign virture which begins at home, we are forced to repel the intrusion, we are impaled on

the other horn of the dilemma, that ignorance is not wholly a monopoly of the general public.

I have heard a member of our profession affirm that two weeks quarantine was sufficient for a case of scarlet fever, and another that two weeks was long enough for a case of mumps, while others would not quarantine at all. I am also credibly informed that the children of a certain town are not quarantined for either mumps or measles, and attend school with their heads and throats tied up; while I am personally aware that young men, who had become ill a short time before leaving military camps where mumps was prevalent, were allowed home on leave, and became centres of infection for their families and neighborhood.

Some have affirmed that mumps is a trivial disease and its quarantine of little consequence. With this view we cannot agree; for, while the disease is usually mild in children, I have seen some serious cases, two of them during the past winter in young adults. During epidemics of mumps, we frequently have cases of orchitis occurring in young adults, and any amount of assurance about the mildness of the disease, as opposed to their own experience, fails to prove very convincing.

In a case I attended last February, the orchitis was intense, the renal and digestive disturbance for over a week severe, while the temperature at times ran up between 104° and 105° F. Not, however, so much in its immediate as in its remote results does orchitic mumps become a matter of serious consideration to both doctor and patient, I refer to the fact that it so frequently results in atrophy of one or both testicles; and eventually in sexual impotence in the latter case.

Apropos of this sequel, allow me to quote to you the conclusions of Laveran:

First. "Orchitis constitutes the principal danger of mumps in the adult male.

Second. "In the adult male orchitis complicates mumps twice in every five cases.

Third. "The orchitis accompanying mumps ends seven times out of ten in atrophy of the testicle.

Fourth. "In those cases, fortunately very rare, in which the atrophy affects both testicles, absolute impotence is the inevitable result."

Commenting on these conclusions of Laveran, Dr. Dawson Williams of London, Eng., says, "We may dispute these figures, and look upon the proportions given by Laveran as too high; but, in a general way, his conclusions may be regarded as sufficiently exact."

If those conclusions are even approximately correct, it is evident that mumps is not a trivial disease, in which carelessness in quarantine should be allowable. Yet, among the laity, and occasionally by some doctors we hear the opinion expressed, that it is just as well that all children should be exposed, so that they might not contract the disease in later years.

But we must not forget that there are occasionally serious cases of mumps even among children, that a certain proportion of children do not contract the disease when exposed, and yet do suffer from it in later, adult years. Besides, if we do not isolate children with mumps on the ground that the disease is seldom serious, how are we to protect our adult male population in whom, both immediately and remotely, the results are often serious, as affecting a most important function, and occasionally, if rarely, resulting in a fatal issue?

The carelessness of those members of the profession, who are half-hearted as to quarantine, seriously handicaps the M. O. H. and other members of the profession in their efforts to enforce the law in a whole-hearted manner, hence the fact that the law is comparatively ineffective in some localities, as the result of its infringement through the dishonesty, carelessness, ignorance or prejudice of some, who wink at its non-observance or break it themselves.

These laws are for the protection of every community in the province, and it should be the earnest desire of every one in each locality to see that the law is enforced.

But, if it is important that rigid quarantine should be observed in every case of mumps, how much more so in diseases,

the results of which are often more serious and fatal. The principle, however, and the object of the law are alike in all, viz., the conservation of the public health and the protection of the whole community.

In the very face of the law of quarantine, how derogatory to the dignity of our honorable calling to be compelled to admit that we have within our ranks medical men who become parties to the covering up of cases of infectious disease, and others who make the law a farce through a ridiculously short quarantine, e.g., the case to which I have already referred, where a doctor stated at a meeting of a local board of health that he considered a two weeks quarantine sufficient for a case of scarlet fever knowing full well, unless inexcusably ignorant, that nothing less than six weeks is a safe protection to the public in any case of that disease, and far too short to cover all cases. But the secret of his contention was the fact that he had a short time previously turned loose upon the public a family where scarlet fever was in the house, hence his short quarantine, coupled with the assertion that it was a mild case. Whether mild or not, a member of this family went into a house in town. The lady of the house felt much annoyed, yet hoping that nothing would come of it, and not wishing to appear rude, permitted the little girl to remain, with the result that her daughter took the disease, this being the only known point of contact.

I attended this girl. Her mother, a very careful and cleanly person, took every precaution through frequent washing and anointing to limit the stage of desquamation, but notwithstanding every care, I found certain regions—the neck at the margin of the hair, the hands and feet, actively desquamating exactly four weeks after the appearance of the rash.

After examining this patient, washing and changing my clothes, I attended a meeting of the local board of health, where a member indulged in some severe strictures re the father of one of my patients who, after being shut up under quarantine for over a month (the longest period of quarantine I could get the board to agree to), had taken the liberty of coming up town to secure food for his family, the board having failed to make arrangements for supplies.

Feeling a little annoyed that this member, of all men, should be so trenchant in his remarks, in view of the fact that he had covered up a case of infective disease in his house a short time before, I ventured the remark that he would be better employed in seeking to control the liberty of some whose period of quarantine had been only ten days. He replied that it was a question of medical opinion. At this juncture the doctor responsible for this short quarantine, and also for assisting the member of the board in covering up a case of infectious disease in his house, came into the meeting and took up the gauntlet which I had thrown down; and truly, "When Greek meets Greek, then comes the tug of war." He acknowledged that ten days was too short a period of quarantine, but that two weeks was quite long enough. I replied that six weeks was the shortest safe period. He responded that it was a question of medical opinion, while I affirmed that it was one of medical authority, and that he could not find an author giving less than four to six weeks as a safe period of quarantine for scarlet fever. He made no pertinent reply.

I then informed the Board that I had just visited my patient, exactly four weeks ill, and had found her actively desquamating. I also stated that I had written the health authorities in Toronto, asking the length of quarantine enforced there, and that I had their reply in my pocket, stating that the shortest period of quarantine in any case of scarlet fever was six weeks; and, if there were still any lingering traces of the disease, such as prolonged desquamation, enlarged glands, kidney or throat affection, the period was prolonged until all such symptoms had disappeared. Needless to say the medical gentleman did not insist on my reading the letter from Toronto.

My object in writing this paper is that the profession should stand shoulder to shoulder in the rigid enforcement of quarantine in cases of infectious disease.

Our health regulations are given us for the conservation of the public health, as its custodians, for the benefit and protec-

tion of every individual and of the community as a whole. Should any of them prove defective, let us seek to amend them; if any are wrong in principle let us seek to repeal them. In the meantime they are for our guidance and direction, and it is fitting that we should accord them the dignity of law, and see that they are rigidly enforced.

It is true that cast-iron methods are not always the best, and that educative ways and means have often to be adopted, in order that the public may entertain a wholesome respect for the law, and thus act intelligently in aiding and abetting those who seek to enforce it. But, how can we as a profession expect such intelligent respect for the law, and for ourselves as its professional exponents, as long as we are at sixes and sevens among ourselves, and when, to our dishonor, for objects best known to those who practice such tricks of trade, we become breakers of the law instead of helpers of those who honestly seek to enforce it?

Law is a wholesome educator when properly enforced, but when those who should be its faithful exponents treat it with contempt by infringing it, how can they expect the public, who are in a measure ignorant of its aim and value, to pay due respect by its observance.

Let the profession, I repeat, stand shoulder to shoulder in having wise health laws enacted, and in insisting on their thorough enforcement; the law will thus become an effective educator; and just in the degree in which it becomes an educative factor, through its thorough enforcement, will it win the intelligent respect and confidence of the public, both for itself and for the medical profession, who will come to be regarded as its intelligent and faithful exponents.

Having formed a high estimate as to the general character of the graduate members of our profession, I take especial pleasure in seeking to dissociate it in principle and practice from those of its members who dishonor it and are ethically unworthy of a place in its ranks, which they abuse to their own private advantage and the reproach of the profession.

The cases I have related have come within the sphere of my own personal knowledge. Such cases may be rare, I trust they are; and I fervently hope that the attitude of the profession toward all such may be of so unmistakable a character, that they may become rarer still, if not frowned altogether out of existence by the high sense of manly, professional honor, manifested in the treatment of all such cases as we have been considering.

How Could a Rural Municipality Employ a Public Health Nurse?

Jno. F. Hanly, (M.O.H.),
Almonte

The Public Health Nurse; what is she? In what way does she differ from other nurses? We have in district nursing, the Red Cross Nurse, the V. O. Nurse, the Social Worker, the different sisters of nursing, of religious and society institutions, all having their place and doing a noble work. The Public Health Nurse must partake of the office of all these and also keep in mind as a foremost idea the protection and preservation of the general public health. Many names have been suggested for her and used, such as visiting nurse, district nurse, etc., but Public Health Nurse seems now to be a generally accepted name for her. A definition taken from the Public Health Nurse Quarterly, published by the National Organization for Public Health Nursing at Baltimore, is as follows:

"A graduate nurse, who is doing any form of social work in which the health of the public is concerned and in which her training as a nurse is recognized as part of her equipment."

She may be employed by municipalities or schools, nursing associations, antitubercular societies, factories or industries, corporations or any public or private persons or group of persons. The Public Health Nurse must partake of at least seven main types of nurses: first, as visiting nurse giving nursing care to any member of a family who is ill, giving at the same time general instructions in hygiene and sanitation and care of the patient, in no way giving continuous care to any one patient. Second, as tuberculosis nurse, caring for T. B. patients, giving instructions and following patients from the clinics to see that the physicians' orders are understood and carried out, and likewise in all infectious cases. Third, as baby nurse, looking after the welfare of babies under three years of age, giving instructions to mothers and others caring for very young children. Fourth, as maternity nurse, instructing expectant mothers, nursing at the time of confinement if needed and a general watchfulness for a limited period. Fifth, visiting schools and following cases home, to give tuition to parents and guardians in carrying out the medical health inspector's orders. Here and in other instances she may exercise her general nursing experience in giving slight nursing care and first aid. Sixth, visiting factories and business houses or industrial corporations and investigating the health of the employee, the sanitation of the working conditions, going to the homes of the employees to investigate causes for absence and illness. Seventh, she may visit the homes of hospital patients to investigate conditions there and give instructions, to follow up dismissed patients to watch over convalescence. A Public Health Nurse should be made a member of the Board of Health in whatever municipality she is employed, giving her an official standing which in spite of all tact she may need to fall back upon for support at times and can also be of more benefit to the municipality. She should have after graduating as a nurse from a full three years' instruction in a large hospital, a course in public health nursing of at least two years in the following lines of work: Midwifery, infant welfare, social service, tuberculosis, school nursing and the control of communicable diseases. This special training should be mostly actual service under a trained Public Health Nurse. Her work may bring her into clash with the ordinary nurse graduate or social worker or may be even the doctor himself. Her own tact must protect her with the other nurse or social worker, but what about the doctor? I am glad to say that the profession now welcome the co-operation of the Public Health Nurse, who must use tact here also, so as not to make one who is indifferent or antagonistic to think she is treading on his toes. And the doctor must keep abreast of the times or go down and out. The public will no longer tolerate mysticism in medicine and sanitation.

Now, what has this to do with rural public health nursing? Well, it was necessary to define and outline the duties of a Public Health Nurse so as to clear the way for a few words as to how she could be made use of in a rural community. Rural communities are of necessity scattered, and receive very little if any sanitary inspection. Sanitary inspection is at a very low ebb in the country and often country homes from pure ignorance, often from laziness and criminal indifference, are perfect horrors in sanitation. Wells in particular, placed only for two reasons, a good supply of water and the most convenient location as to what kind of water and what drains into it; no care whatever, so long as the supply is abundant and the water clear. A total indifference as to the location of house and stables or byres, hog pens, etc., except on a utilitarian basis.

The Public Health Nurse can go into the home and give the instruction which the doctor has not the time to give, and can by talking with the mother, who is the real mainspring of the home, point out and instruct as to bettering the conditions. She can be employed to visit the school in the country, advising the scholars when to send for the doctor, and that her usefulness in infectious diseases will be very great goes almost without saying Her nursing training will enable her to see in the children the ones drooping from eyestrain and other troubles that the teacher, busy with the book learning, cannot take time to observe. She can follow the children to their homes giving the parents and guardians instructions how to deal with such troubles as may arise. Nursing care she must from time to time be prepared to give if need arises, but her duties here are mainly to oversee and instruct in school and home, in sanitary and hygienic matters. One more thing we must not forget, i.e., her social side, which is very necessary in isolated rural communities. A mother may be overcome with the rapid coming of children, for there are still spots on this earth where birth control is not exercised; this and the deadly monotony of her life may in time actually break down reason. To such cases the social side of a Public Health Nurse may be a veritable godsend. She can be a visitor at such a home and with kindly interest and trained advice do a very great deal to make this particular class of case lead a more happy and healthy life and not unlikely be the means of keeping her from the hospital for insane. In the Union to the south of us, that has made use of the Public Health Nurse, this has really occurred. Public health nursing must be paid for and such nurses are getting from $75.00 to $125.00 per month. In rural districts transportation must be provided. Some have horse and saddle, some horse and rig, some have autos. This is usually settled by local conditions. Salary may be paid by state or municipality. In most instances they have been started by individuals of private means, and fees for work done (where such can be collected) going to reduce the first cost. The nurse must be energetic and kindly, decided, and above all, tactful, especially when starting in a district, careful to report delinquents to the Board of Health, as well as to her employers, who should be the Board of Health. Part of the cost of the Public Health Nurse may be set by fees from school boards, factories, etc., who make use of her special services. Once started, her great general usefulness will soon be made so manifest that municipalities who are notoriously hard to deal with will really not mind paying the full cost of a Public Health Nurse. Once in a district, and having remained as a fixture, she has been able to make living conditions more bearable for the country people, the women in particular. She has been able to reduce sickness among school children as well as adults. She has been quite a factor in reducing infant mortality, being a full time public health official she is able to devote herself heartily to her work and get results that others working spasmodically cannot get. Some may ask, why make a specialty of a rural Public Health Nurse? I will only say that though country air and life are supposed to be the very best, yet in so many instances the general sanitation and hygiene of the country homes and schools are such that the country child has not the same chance of living that the city child has, due to the care and instruction given in sanitation and hygiene.

1917 Meeting of Ontario Health Officers

The Ontario Health Officers' Association held its sixth annual meeting in the Medical Building of the University of Toronto, on Tuesday and Wednesday, the 29th and 30th of May. The attendance was upwards of 300.

The meeting was held as a general session during the first day, and upon the second day was divided into a general session and one upon public health administration.

Dr. A. J. Macaulay, M.O.H., of Brockville, made an ideal presiding officer.

Suitable reference was made to the death of the late Vice-President, Dr. Vardon, of Galt.

The first session included a discussion on venereal diseases, the paper, with slides, being given by Dr. Gordon Bates, of Toronto. The discussion was carried on by Drs. C. H. Hair, C. R. Trow, and others.

The subject of Infantile Paralysis was presented by Dr. H. W. Hill, M.O.H., of London, who gave a most instructive paper upon this subject. Papers upon the same subject were given by Drs. Durocher and Cruickshank, of Windsor, and Dr. Green, of Stoney Creek. There was a free discussion, led by Dr. Amys, M.O.H., of Peterboro.

In the afternoon session, after a short address by the president, Dr. C. J. Hastings gave, on behalf of the Mayor, an address of welcome. This was succeeded by the address of the day, given by C. E. A. Winslow, Professor of Public Health, Yale School of Medicine, New Haven, Conn., upon the subject of "Safeguarding the Health of Young Children." Professor Winslow's address gave a description of some practical methods of life-saving. He pointed out that the campaign carried on in New York, has reduced the infant mortality rate in that city, from 154 in 1900, to 93 in 1916, which means a saving for that city of over 8,000 lives a year. Recent estimates of the comparative value of various lines of public health endeavor shows that infant welfare work offers one-fifth of the total possibilities of life-saving which are open to the health department.

Professor Winslow pointed out that every community of 10,000 inhabitants should have not a "milk station" merely, but a baby's clinic and dispensary, where children may be brought for weekly examination, and from which public health nurses may go out to carry instruction to the home of the individual mother. In larger cities there should be such a station for every 20,000 of the population. The nurses should also undertake the prenatal care of mothers. The experience of Boston has shown that such care may result in cutting the infant mortality to one-half the figure prevailing among families not receiving pre-natal advice. For the rural communities there should be public health nurses backed by available competent pediatric knowledge which might be secured by co-operation with the infant welfare organization of the nearest city (or with that of the Provincial Board of Health.)

The essayist said that the deaths of infants are due principally to three great groups of causes, (1) Prematurity or congenital debility and other causes operating at the time of birth. (2) Gastro intestinal infections. (3) Pneumonia and other respiratory diseases. The machinery of the infant welfare station helps in dealing with all of these groups the more especially with the second, namely, summer diarrhoeas and other digestive disorders. Means of procuring adequate and safe milk supplies are indicated in the paper, and the value of inspection and pasteurization pointed out. The importance of measles and whooping-cough as public health problems were discussed, especially in the very earliest years. The fatality of whooping-cough is five times as great under one year as over five years, of scarlet fever ten times as great, and of measles twenty times as great. These facts indicate the great necessity for the protection of young children against infection. Schools should never be closed during epidemics. The services of the

public health nurse should be secured and an examination of school-children made every morning for the detection of the disease in its earliest stages.

The whole paper is of the greatest value and should be read by every health officer.

The Hon. W. D. McPherson, Provincial Secretary, made a short address of welcome to the members of the Association, in which he showed evidence of intense interest in public health matters. His address was received with great enthusiasm.

Dr. Chas. J. Hastings and Dr. J. F. Hanly, each gave comprehensive addresses upon public health nursing.

Dr. F. D. Canfield read a paper on "The Adrenals," and the veteran chairman of the Provincial Board, Dr. Adam Wright, spoke upon "Rest and Sleep as Factors in Disease Prevention."

On the second day the morning session of the Association was carried on in two sections. The general session included papers upon "Sex Hygiene," by Dr. N. W. Woods, and "Mendelism," by Dr. Jas. Roberts. There were two splendid papers on the subject of Tuberculosis, the one by Dr. D. R. Craig, and the other by Dr. A. R. Hanks. Dr. Jenner discussed. "The Public School as a Place of Instruction in Practical Sanitation."

In the section on Public Health Administration. there were papers upon the difficulties of medical officers, by Drs. Macdonald. D. A. Kidd and F. H. Mitchell; on the Education of the Public, by Dr. H. Logan; upon the Public Health Act, by Dr. A. Nichol; and upon the Relationship of the District Officer to the M. O. H. of the Municipality, by Dr. G. F. Richardson.

Most excellent papers upon, "Ways and Means of Conducting Public Health in the Average Town," was given by Dr. C. A. Patterson, and upon some practical points in enforcement of the regulations, by Dr. H. Ross.

Dr. W. Doan, of Harrietsville, and Dr. F. King, of St. Catharines, gave interesting papers upon their experiences as medical officers of health.

On the afternoon of this day the session was entirely taken up by papers on the subject of Epidemiology. Measles, Scarlet Fever and Diphtheria were discussed by Drs. A. A. Metcalfe, J. C. Hutchinson, and A. H. Speers. Variola was the subject of a paper by Dr. J. P. Boyle, while Disinfection was discussed by Drs. R. K. Anderson and James Campbell.

The matter of Communicable Diseases was the subject of papers by Drs. J. H. Howell, W. R. Mason and Jas. Mc. Potts, while Dr. S. F. Millen ably handled the question of typhoid fever in rural communities. All these matters were the subject of general and wide discussion.

Drs. Fitzgerald and McCullough answered the questions submitted in the "Question Drawer."

The officers and committees elected were as follows:

President—Dr. H. W. Hill, M.O.H., London.

1st Vice-President—Dr. G. F. Cruickshank, M.O.H., Windsor.

2nd Vice-President—Dr. E. A. Williamson, M.O.H., Kingston.

Secretary—Dr. J. W. S. McCullough, Toronto.

The Committee on Papers and Arrangements comprises, Drs. G. A. Dickinson, J. J. Harper, and J. W. S. McCullough.

The Sanitary Inspectors' Association of Western Canada

Overcrowding—Why is it Tolerated?

By Thos. Watson
Chief Provincial Sanitary Inspector, Saskatchewan

First-Prize Essay

There is perhaps no subject which has received so much treatment as a text on which to hang a paper, as that we have chosen. It has been treated from all standpoints, and yet without any seeming exhaustion, or at least without arresting that serious consideration of sufficient magnitude to bring it before the public for their verdict.

It is said that no great reform is possible of attainment, unless backed strenuously by public opinion. Just how difficult it is to stir up the general body of the public, even on matters essentially appertaining to its own welfare, is well known, but if our humble effort, added to the volume of matter already written on the subject, will bring nearer an early solution of this blot on civilization, well and good.

It will be well, before dealing with our subject, to have as clear a definition of overcrowding as is possible, to guide us in treating of it, in its relation to the public health.

For this purpose it is advisable to differentiate between overcrowding of space or area, and overcrowding of rooms—under which two heads, we propose discussing this problem.

By overcrowding of space is meant the covering to excess, of any area of ground with buildings devoted to human habitation, or partly so, which would affect injuriously the health and morals of residents upon such area.

By overcrowding of rooms is meant the occupancy of same by a greater number of persons than the air-space and ventilation provided would suffice as being reasonably ample to allow of healthful living under decently moral conditions.

Taking, then, the first, viz: overcrowding of space or land, there is absolutely no country professing to be civilized in which we do not find houses on land so crowded and congested as to preclude the possibility of healthy life.

In this 20th century this may seem a bold statement, but in spite of the many exposures of instances where such crowding is perpetrated and perpetuated, is not this the case?

Notwithstanding the legislative enactments which have been created to prohibit overcrowding of lots by buildings, it is the case that such laws are broken in all the countries on whose statutes they are written.

There is no problem more serious, or more damaging in its effects on the health and morals of citizens, of any country, than that caused by the enforced congregating of large numbers of people in areas where conditions are such as make it impossible for fresh air to penetrate.

Enforced congregating may be questioned, but that such congregating is real, we cannot doubt that it is forced. As cities grow the habitations of citizens have to give place to the need for centralizing business, and this is done by a process of squeezing out the owners who had built their houses in the hope of their being permanent. There is no

resisting this squeezing, and the means employed, as we know, are questionable. If some sugar-coated offer of a land speculator or real estate agent is refused for a time, then, taxation is used to force removal, and for a pittance of the value owners are compelled to move.

We have witnessed, in town improvement schemes, the demolition of many congested and dangerous areas, only to shift the occupants of such to other quarters, without any previous provision for their obtaining more suitable abodes.

The process is repeated from time to time until, in order to keep employed, and be in reach of their work, the large majority of what originally were fairly contented and well-to-do artizan and laboring families are perforce brought to a state of subjugation, with the result that some place of shelter, not a home, must be secured.

You all know this is no picture drawn from a contorted imagination, but is real.

While other problems of magnitude pertaining to the social welfare of mankind have been attacked, and successfully dealt with, this, the oldest of them all, seems impossible of successful combatting.

We grant that it has occasioned much enquiry, by individuals, committees and commissioners, but even now, no real preventive measures inaugurated, are effective in preventing its uninterrupted succession.

So far, we are taking it for granted that the overcrowding, of which we speak, exists, and to prove that it really is a dangerous thing, and injurious to the public health, some reliable evidence must be produced.

A few years ago in the city of New York, five blocks of buildings held 3,000 people each, while many of the rooms were without light, or any means of ventilation. In 1904 in the same city there were 350,000 dark, unventilated rooms. In 1900, one such block held 2,781 men, women and children, who were stowed away in 1,588 rooms.

This apparently is not overcrowding, you will say, but when we consider that 400 of these rooms had no windows, while 600 other rooms in the same building, had windows which opened into an air-shaft 28 inches wide running up inside the building, you can better understand what the conditions would be like. No ray of sunlight could ever enter such rooms, while no fresh air could penetrate through such a funnel, as the shaft must have been poisonous from the exhalations, and effluvia seeking an exit. It has been found that 290,000 people were living in a part of that city, to the square mile.

Imagine a square mile of land, as you can intelligently do, by taking a section of 640 acres. Place an army of 290,000 men on it, and what room would its commander have for the exercising of his troops?

This is overcrowding with a vengeance, and gives some idea of the density of humanity, confined, as far as living quarters are concerned, in certain areas of our large cities.

In London, Eng., the overcrowding of space is little better, but the height of buildings is not so great. But there, too, we find 300,000 of its citizens living in tenements of one room to a family, a large proportion having from five to eight persons in a room.

Unfortunately the statistics quoted are incomplete as they do not cover or give any evidence of the rate of mortality occurring, but it is a well known fact that in congested areas the rates, both of sickness and death, are far greater than in the more open, rational, residential districts.

Under such conditions the people degenerate physically and morally, and become a menace to all the other citizens who go to make up the community.

What is true of these great cities is as true more or less in nearly all other urban and suburban centres. Even in Canada, where the average population per square mile is about 11, we find conditions, comparatively speaking, much th same. Instances are not wanting to support this statement. In Montreal, Toronto, Winnipeg, and almost every city, the covering of lots with buildings to an extent preventing the possibility of decent living arrangements is to be found. The smaller towns and even villages, too, have areas which are overcrowded, some pest spots

in which disease germs breed, and from which death reaps a toll by premature destruction. We have seen whole blocks so littered with erections, that any means of controlling the cleansing or removing of household wastes was a task almost hopeless of result. What was originally built and intended as a reasonably healthy habitation, would be added to from time to time till the original house or home changed its complexion entirely, being converted into stores, workshops, laundries or other more profit-bearing structures, a conglomeration of erections without order, design or comfort. In just such congested areas do we find occupants clinging tenaciously, and living under conditions extremely dangerous, not only to themselves, but to their fellows.

Again, we have seen in some of the newer prairie towns, whole blocks of land literally covered by buildings where homes were over-shadowed and practically shut out from sunlight, without any power to interfere.

We hear much of town planning—all hail to any scheme which will make provision in the coming days for open spaces for recreation purposes, reasonably wide thoroughfares for traffic, whether pedestrian or vehicular, and prevention of skyscrapers, either as apartments or offices, out of proportion to width of streets, and which shut out the sunlight.

No town planning will be beneficial which does not include the abolition of existing monstrosities which cover the ground to the detriment of the health of present day manhood. Nor will any scheme be of permanent good unless a firmly established security is assured that no area will be exploited for mercenary reasons.

Overcrowding of space is much more dangerous to the general welfare of the public than overcrowding of rooms, because of the lack of measures to prevent it. No restrictions, or at least no adequate restrictions are in existence against ground being utilized at the caprice and selfishness of owners.

We have purposely abstained from laboring our paper with more figures than were requisite, in showing the conditions prevalent in some of the larger cities, but trust sufficient has been given to convince all, that overcrowding of land by dwellings is a serious blot on our civilization. It is damaging to the best interests of any community in every respect, and especially so with regard to the public health.

Coming now to the second part of our subject, viz: overcrowding of houses or rooms, it must be admitted, notwithstanding all regulations and by-laws, that it exists, and that to an alarming extent.

We are not treating of unsanitary housing, which is another problem, although the two very largely go hand in hand. It is not confined to congested areas, but is met with in districts which would resent the imputation, in isolated dwellings in fashionable suburbs, and to a terrible extent over our Western prairies.

Where will you find a city or town of any size without its suburb known as "shack town?" a majority of which shacks are of one room and usually overcrowded. With this nature of overcrowding you are all more or less conversant. It is a branch of sanitary work now happily receiving some attention, but to what an extent it is prevalent the general body of the public have no conception.

Similarly to overcrowding of land it is very largely owing to avarice and selfishness, but not entirely so. Social conditions are partly responsible, for we find certain classes forced to eke out an existence by taking in boarders, owing to inability to procure houses suitable for their family needs, at reasonable rates. Others again from motives of greed and selfishness open their homes to roomers, until every available foot of floor space in sleeping rooms is utilized, profitably of course, to the complete indifference as to the comfort or health of all.

Then we have our modern apartment blocks, some of which at least are abortions unworthy the name of dwellings, and which have been described as little better than human packing boxes. It would be wrong to place a stigma on all apartment houses as to overcrowding, but many of them, and many apartments in most of them, harbor occupants much in excess of their cubic content.

How much better is a large percentage

of the centrally situated residential detached and semi-detached houses in our chief cities? Private rooming houses, not subject to inspection, are in many instances overcrowded to a greater degree than the registered common lodging houses, and without the requisite conveniences with which the latter must comply.

Another class of dwelling, largely escaping notice, but none the less dangerous to the health and existence of an important section of our people, is that of the homesteader's shack.

We might enlarge on this rural apology for a home with its attendant results of wretchedness, despair, disease and death, but forebear. Many one-roomed shacks abound in which the inmates of all ages and sexes are born, live, eat, sleep and die under conditions as injurious as are to be found in any slum hovel in the large centres of industry.

Perhaps, next to medical men, sanitary inspectors know more of the evils of overcrowding than any other class of civil servants, and we would be remiss in our duty as such, if we failed to expose evils, as well as to suggest remedies for the abatement and removal of conditions vitally affecting the well-being and destiny of the whole people.

Nothing is so destructive of home life, which is the foundation of any states' morality, as the housing together indiscriminately of a number of mixed occupants. The loss of family privacy leads to family depravity, the inherent finer feelings of children become blunted and blasted, modesty is destroyed, decency and virtue are so outraged that they become vices, and physical degeneration with its resultant liability to impaired health, ensues. Good and evil are contagious. Overcrowding breeds disease, disease is unclean, unnatural, and nature rebels against it, bringing death, often prematurely, as the punishment.

It is an undisputable fact that diseases of an infectious nature, when contracted, are almost beyond control when they occur in overcrowded areas or premises, as the infective virus is spread so readily by direct contact, in such suitable places where susceptibility presents a ready field for the punishing agent.

What better field for the perpetuation of tuberculosis and kindred diseases, than premises where overcrowding is prevalent, the germ having an ideal propagating, attacking and death-bringing situation for its action, as air and sunlight are usually absent?

Vital statistics, which are a record of man's existence and death, give proof of the relation which exists between overcrowding and disease, and that record is that both incidence and death rates are always higher among inmates in overcrowded districts and houses than among those whose environment is less congested.

That much has been, and is being done, in abolishing this nuisance, we all know, indeed we all can claim some results in this regard. Public health officials in all countries are charged with a certain responsibility to prevent this form of overcrowding, in the interest of the public health, but they know how much other interests retard their zealous, sometimes over-zealous, efforts.

We could mention many instances and places where inspectors are set apart specially for this work, and whose reports are on record revealing not only the enormous extent of this evil, but also the appalling iniquity of which it is the prime cause. That remedial measures have done much good cannot be gainsaid, and the carrying out and enforcing of such measures by inspection are resulting in the abolition or remodelling of many buildings in which it flourished.

As a problem detrimentally affecting the physical, mental and moral worth of any nation it cannot be too strenously exposed, as all the attributes which go to the upbuilding of national health are found wanting wherever this unwholesome condition is tolerated. Only the merest fringe of its magnitude as an evil has been touched, in so far as total prohibition is concerned, and our profession should continue to expose its vile effect on health, and agitate among the people for such legislation as will provide healthy homes. As officials whose work is that of prevention, this overcrowding is one of

the worst factors against progress for the public good.

Overcrowding in every sense of the term, is a blot on our so-called modern civilization, and every means should be exerted to arouse the constituted authorities, to a conviction that humanity demands their sympathy and action, to provide and retain sufficient room and airspace, which is the birthright of every citizen.

If this is so, why then is it tolerated? The earth is the Lord's, and has been given to mankind as a dwelling place, by a wise Creator, but man has assumed and arrogated to himself the right to dispose in various ways, of parcels of lands which by right belong to the people.

We are not subscribing to any of the opinions or principles of Socialists, or advocating that governments re-acquire all lands, and make a re-distribution of them, but we do claim that the peoples trustees ought to set apart and preserve from manipulation such areas wherever and whenever required, as will provide for the needs of all people without bringing about such overcrowding as we have pictured. How this can be done is no duty of ours, but it should be part of the obligation of our elected representatives in administering national affairs.

The general body of the people are largely to blame in tolerating the subversion of its rights, and allowing the exploitation of land, for selfish purposes.

If the people continue indifferent, and are content to suffer a continuance of the present mode of selling their birthright to their own humiliation, there will be small possibility of reform.

What might ameliorate conditions with respect to land being overcrowded, would be the enacting of restrictions to protect the public, by building regulations which would recognize, that private rights and "use and wont" must give place to the public interest and general concern.

No regulations will ever be effective until those administering them are free from the influence, political or personal, of those elected to manage community interests.

There are gleams of light appearing in these times, that may result in the realization of the prophecy of the Scottish bard, that

"Man to man the world o'er,
Shall brothers be."

MONTHLY JOTTINGS

We are glad to be able to report that Mr. W. J. T. Watt, Vice-President for Manitoba, has returned from Rochester, Minn., and resumed his duties.

Prize essay competition: The delay in awarding the prizes was due somewhat to the illness of Mr. Watt, one of the judges.

After fully considering the papers the committee of judges have made the following awards:

First prize—"Overcrowding. Why is it tolerated?" By Thos. Watson, Regina, Sask.

Second prize—"Scavenging. Is standardization worth while?" By D. Little, Winnipeg, Man.

Third prize—"Vital Statistics." By J. Martin, Regina, Sask.

Honorable mention—"Safety First." By R. McQuillan, Winnipeg, Man.

Honorable mention—"The Flush Valve, from a Sanitary Inspector's Standpoint." By A. Aitken, Winnipeg, Man.

The three leading papers are so nearly of equal merit that the judges had some difficulty in coming to a decision and finally decided to award the extra prize. We wish there had been more prizes to award, for the papers given honorable mention are also worthy of prizes.

We expect to publish many of the papers in The Public Health Journal. Twelve papers in all were sent in.

Nothing has yet been decided regarding the holding of the Annual Meeting this year. If, however, a convention is arranged for, it is quite likely to be held in Saskatchewan.

Mr. E. C. Davies, late of Medicine Hat, has been appointed Sanitary Inspector, Brandon, Man. We wish Mr. Davies all success in his new position.

The Winnipeg men have been examined for their First Aid Certificates, and it is pleasing to note that all were successful.